

Notice of Allowability	Application No.	Applicant(s)	
	10/666,587	NIE ET AL.	
	Examiner	Art Unit	
	Melanie Yu	1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 16 September 2005.
2. ☒ The allowed claim(s) is/are 1, 2-3, 6, 8, 9-26, 97, 111, 60, 62-73, 99, 112-114, 79, 85-96, 115-117, 82, 83, 104-110, 122-133, 118-121 and 134 (renumbered 1-84, respectively).

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>9/18</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. Authorization for this examiner's amendment was given in a telephone interview with Mr. Christopher Linder on 21 November 2005.

The application has been amended as follows:

Claim 1, line 12: "the interaction" has been changed to --an interaction--.

Claim 111, line 18: "the interaction" has been changed to --an interaction--.

Line 21: after "a sealant," insert --and wherein the first characteristic is selected from a hydrophobic characteristic, a hydrophilic characteristic, an electrostatic characteristic, and combinations thereof--.

Claim 114, line 17: "the interaction" has been changed to --an interaction--.

Line 21: after "a sealant," insert --and wherein the first characteristic is selected from a hydrophobic characteristic, a hydrophilic characteristic, an electrostatic characteristic, and combinations thereof--.

Claim 117, line 11: "the interaction" has been changed to --an interaction--.

Line 15: after "a sealant," insert --and wherein the first characteristic is selected from a hydrophobic characteristic, a hydrophilic characteristic, an electrostatic characteristic, and combinations thereof--.

REASONS FOR ALLOWANCE

Art Unit: 1641

1. The following is an examiner's statement of reasons for allowance: the prior art fails to teach a nanospecies having a first characteristic and a second detectable characteristic, wherein the nanospecies is embedded in a plurality of pores of a porous material also having the first characteristic, wherein the nanospecies remain embedded within the pores without the addition of a sealant and the nanospecies held within the porous material by a characteristic selected from: a hydrophobic, hydrophilic or electrostatic characteristic, wherein a probe is bonded to the porous material and a fluorophore and quenching moiety are bonded to the probe. Chee et al. (US 6,544,732) teach a nanospecies embedded in the pores of a porous material, wherein a hydrophobic, hydrophilic or electrostatic characteristic is present, but also teach the addition of a sealant wherein the pores are closed to hold the nanospecies within the porous material. Walt et al. (US 2003/0027126) teach a detectable nanospecies embedded in the pores of a porous material by a hydrophobic, hydrophilic or electrostatic characteristic without the addition of a sealant. Walt et al. teach a probe bonded to the nanospecies for labeling purposes and fail to teach a probe bonded to the porous material. If the probe of Walt et al. were bonded to the porous material, the nanospecies of Walt et al. would no longer serve a purpose, thus the invention would be rendered in operable if the probe were bonded to the porous material instead of the nanospecies.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 1641

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Yu whose telephone number is (571) 272-2933. The examiner can normally be reached on M-F 8:30-5.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Melanie Yu
Patent Examiner
Art Unit 1641

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11/28/05